- 1 have been proactive, and they've given me some issues both
- 2 in public and in private. I won't say any of them are
- 3 safety issues right now.
- 4 We've also brought Randy in, and he has a lot of
- 5 experience in this area, to be independent. He reports to
- 6 Bill. And we put a team of independent investigators with
- 7 Randy already, and we've communicated that to our site
- 8 personnel.
- 9 So, once again, the approach has been a strategy,
- 10 rather than sitting back in the office and being active and
- 11 proactive, out in the people looking for issues; whether
- 12 they be, whether it be contractors, our own employees.
- 13 Initially, you know, when we trained all the
- 14 supervisors for, we just spent four hours with each
- 15 supervisor, and both contractors and our own supervisor,
- 16 make sure that they were sensitive to addressing employee
- 17 issues. So, the strategy is to really be proactive in this
- 18 area.
- 19 Are we successful yet? I think it's quite too
- 20 early to tell, but we have a lot of things in place
- 21 already.
- 22 MR. COLLINS: Do you have
- 23 majors in place with this interim program? Majors of
- 24 effectiveness, have you defined success of the program?
- 25 MR. MYERS: I don't think so,

1	no.
2	We're working that out. Do we have that yet, Bill?
3	MR. PEARCE: No, we don't. Let
4	me say something.
5	I think what we've worked on, what we prioritized
6	first was this; it's more important that if there are
7	issues out there, that our folks feel that they're able to
8	raise the issue. So, that's what we prioritize is the
9	first thing. That's why we did the Safety Conscious Work
10	Environment training with the supervisors and made sure
11	that there is no, that there is no harassment or
12	intimidation issues and that kind of thing.
13	So, that, you know, what we really want is safety
14	issues to make sure we get those captured. And whether
15	it's captured in your program or our program is, I guess,
16	somewhat of it's more painful to collect it in your
17	program, but as long as they get captured, that's the main
18	issue in what we focused on first.
19	And we brought Randy in and the group of contractors
20	in to do independent investigation, because when we did the
21	survey, one of the issues as you might remember that was
22	brought up in the survey, was the fact that the management
23	when somebody brought up an issue, before they do it, the
24	management folks were hearing about it and going and doing

an investigation.

1	Well,	we countered	that by	doing	independ	lent
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- 2 investigations. That's the idea, to make sure we didn't
- 3 lose issues, safety issues that needed to be brought
- 4 forward. And so, I think that was the right priority to
- 5 take on the issues.
- Now, we're moving out from that issue and putting in
- 7 place a longer term program to make sure that we, within
- 8 our own house that we collect the majority of the issues
- 9 and get them investigated in-house. So, that's kind of the
- 10 sequence that we're going through.
- And we've got more things we haven't talked about.
- 12 We've got a team put together that looks at all the
- 13 employment issues that we're having; HR issues, and all
- 14 that kind of thing. And so we're collecting and being
- 15 proactive, as Lew talked about. The Four C's Meetings are
- 16 a part of it. So, there is a wide range of issues we're
- 17 dealing with there.
- 18 But I think that more accurately portrays overall
- 19 what we're doing, rather than just focus on the, you know,
- 20 which issues are going where.
- 21 MR. MYERS: The actions we're
- 22 taking are a direct reflection of our survey. We're taking
- 23 actions that solve issues addressed in our survey. You
- 24 think that's fair?
- 25 MR. PEARCE: Yes.

1	MR. MYERS: The first thing I			
2	want to go to is first line supervisors, and that's where			
3	we thought the issue was, and that's what we attacked			
4	first. Okay?			
5	Another thing we've done is we have implemented our			
6	Management Observation Program that we brought over from			
7	our Perry Plant and Beaver Valley Plant. It's			
8	computerized, and I've seen Randy use it personally. It's,			
9	we think it's an excellent program.			
10	And, I think you like it.			
11	But, it allows us to take issues and review issues			
12	from an implementation standpoint. We've talked to, we			
13	don't think we're at the point yet where we can make any			
14	determination. We have five hundred observations now. We			
15	know that we've seen some issues with supervisors were not			
16	coaching and counseling like they should in the field.			
17	So, it's too early to tell. The problem is			
18	implementing, and we'll give you more information on that.			
19	MR. GROBE: Lew, five hundred			
20	observations is a lot of observations and if I remember			
21	your program correctly, you've got a number of attributes			
22	that are listed that people are evaluating in the field.			
23	Have you done any tracking or trending of these			
24	issues, and do you have any performance indicators or			
25	evaluation of criteria for success?			

1	MR. MYERS: Yes. And, you
2	know, a month or so ago I went through the various areas,
3	and picked out performance areas that I think we need to go
4	look at. I haven't used any of that yet. And I'd probably
5	be willing to tell you about that at the next meeting. I
6	think it's just too new.
7	MR. GROBE: I would be
8	interested once you get these performance indicators and
9	measures in place in receiving them, as well as the other
10	performance indicators on productivity.
11	MR. MYERS: You like to hear
12	that at the next meeting, we'll give you information on
13	that.
14	MR. GROBE: That would be
15	great.
16	MR. MYERS: Okay. Another
17	thing is we're physically scheduling two of our managers
18	for observation. So, we're building the managers into the
19	schedule for these observations.
20	I would like to talk a few minutes about a case
21	study, to tell you I think how that went. That was a
22	major, I don't want to use the word production for us, but
23	a major happening.

The case study, which took an entire day with

everyone on site. Took an entire day. All the managers,

24

- 1 including Mr. Saunders, Gary Leidich, were involved in
- 2 this, what we call a case study. It was four hours long.
- 3 It really was not just a case study. It was, first
- 4 of all, we went over and over what happened in this event.
- 5 What are the issues that we saw in the event, the
- 6 timeline.
- 7 We then went to each department. We didn't do this
- 8 with multiple groups; we did it with individual groups.
- 9 Then, we took each group and we looked at how they could
- 10 have helped prevent this event. How they could
- 11 contribute.
- We looked at their standards, talked about the
- 13 problems, and we talked about the standards of senior
- management that we just rolled out. And each and every
- 15 group and each and every person took tests. Passing was
- 16 80. We completed 864 people.
- We received feedback from 76 percent of the people
- 18 that took the test, and the course. The overall ratings
- 19 were that 96 percent of the people said it met
- 20 expectations. One hundred percent -- 15 percent indicated
- 21 that it was one hundred percent successful in their minds.
- 22 In fact, comments were, why didn't we do it quicker. Well,
- 23 the reason was, we weren't ready quicker.
- 24 The population across the board was pretty uniform.
- 25 You look at craft versus noncraft. And if you look at

1 technical factors versus nontechnical factors. Uniform

- 2 population.
- 3 Here's some of the things we got out of that.
- 4 First, to be successful in the future, they liked what we
- 5 did here, but we have to walk our talk and be effective.
- 6 This is just a beginning. We must follow through.
- 7 It's nice we gave them all this stuff, but we have to
- 8 follow through at every level.
- 9 They talked about Bob Saunders coming down and
- 10 spending his day with them was very positive, as well as
- 11 Gary Leidich.
- 12 It was important that we get this out to everyone,
- 13 but we should have done sooner.
- And the overall, we think that the feedback received
- about the presenters, were they did an excellent job on the
- 16 presentation. And, the presentation consisted of a
- 17 videotape, so we have that timeline consistent with each
- 18 department. Then the departmental managers, you know,
- 19 reflecting how this affects their own department.
- 20 Another area of concern was management's production
- 21 versus quality and safety priorities. What we're trying to
- 22 do, what we're trying to prioritize, I know Randy has too,
- 23 is to demonstrate that we're willing to stop and take the
- 24 time we need to address problems.
- We have done that on the feedwater heater.

- 1 We've done that on containment, containment closure,
- 2 which we talked about awhile ago.
- 3 Fuel movement stop work.
- 4 The polar crane work we stopped. We did two weeks
- 5 there. We took a hard two-week hit in or schedule there.
- 6 And finally the other day we had problems with
- 7 moving RCP motors, and we didn't go forward with that until
- 8 we felt confident that everyone was safe and reliable to
- 9 move those motors. That's the message we're trying to put
- 10 out.
- 11 There's still some skepticism in our groups about
- 12 raising issues and fear of reprisal. And we talked about
- 13 that. That's what we've got Randy working on. That's the
- 14 atmosphere. I can say here that I want to create an
- 15 atmosphere where people bring up and tell us their issues.
- 16 And if we can create that atmosphere, we'll be successful.
- 17 On the test results --
- 18 MR. GROBE: Lew, could I do a
- 19 quick time check? I would like to try to end this portion
- 20 of the meeting at five, so we have time for the public.
- 21 You've got two additional sections. Mike was going to talk
- 22 about -- two Mikes. Mike Ross was going to talk about
- 23 Operations, Mike Stevens was going to talk about Schedule.
- 24 MR. MYERS: I suggest we skip
- 25 Schedule.

1	MR. GROBE:	Well, I think	
2	that's pretty self-explanatory,	so I think folks can get	t

- 3 that and you've talked about it already. I definitely want
- 4 to get to Operations.
- 5 MR. MYERS: Okay. I'll
- 6 finish up now.
- 7 MR. GROBE: Good.
- 8 MR. MYERS: From a case study
- 9 standpoint, the average grade was 93 percent. We had one
- 10 failure of a past criteria, 80 percent. We remediated that
- 11 person immediately. And 45 percent of the people made up
- 12 on the test.
- So, I feel like I can look the public and you in the
- 14 eyes now and tell you that we have rebaselined and clearly
- 15 documented. We understand our departmental standards. We
- 16 understand with each group how this event happened, and
- 17 we're ready to go forward.
- 18 With that, I would like to have Mike talk to you
- 19 about Operations Excellence Plan.
- 20 MR. ROSS: Good afternoon.
- 21 My name is Mike Ross and I'm the Manager of Operations
- 22 Effectiveness at Davis-Besse.
- 23 A little about my background. I've worked in
- 24 commercial nuclear power for more than 30 years.
- 25 Additionally, I spent time in the United States Navy in the

1 Nuclear Submarine Program and also had a tour of duty

- 2 assigned to Naval Reactors Branch.
- 3 I have held management positions as Operations
- 4 Manager, Maintenance Manager and Plant Manager at the Three
- 5 Mile Island Nuclear Facility for more than 20 years. All
- 6 but four of my commercial experience years have been in
- 7 nuclear power plant environment. Two of those four years I
- 8 spent as a instructor at a test facility, and two years I
- 9 spent in the corporate office of the Excelon MidAtlantic
- 10 Regional Group. I held a senior reactor license for more
- 11 than 25 years.
- 12 Next slide.
- 13 I was brought to Davis-Besse to assess the
- 14 operations staff, and prepare for restart. And above all,
- 15 assure after restart they had a sustainable level of
- 16 performance.
- 17 The RHR group has completed an assessment, as Lew
- 18 said, for all operations supervisory personnel.
- 19 Additionally, the first line supervisors were completed.
- 20 RHR find no or found no individuals that they deemed did
- 21 not have the ability to go forth and represent the FENOC
- 22 standards and values, that we're really clearly interested
- 23 in having in the Operations Department.
- 24 Several personnel, and that's very key personnel,
- 25 were deemed to be in need of some additional improvement

- 1 actions, and those plans are under way now for those
- 2 individuals.
- 3 My assessment of the Operations staff, actually
- 4 centered on the leadership team in Operations. As they
- 5 will definitely set the standards for health and progress
- 6 in operation as we set for restart and after restart.
- We've got a fairly new team of people involved in
- 8 operations; the Plant Manager, Operations Manager,
- 9 Operations Superintendent, and Operations Support
- 10 Superintendent have all been new within this year. That's
- 11 since January of this year.
- 12 Two shift managers are relatively new to their
- 13 position; one has been new this year and the other within
- 14 two years.
- 15 Plant Manager, while new to Davis-Besse, has many
- 16 years of nuclear experience and he is a proven manager.
- 17 The Operations Manager has been a licensed operator
- 18 at Davis-Besse and has experience in maintenance. He has
- 19 very good standards and excellent people skills.
- 20 The Operations Superintendent has an active, I said
- 21 active SRO license, and is a very knowledgeable and
- 22 respected long time employee of Davis-Besse.
- 23 The Operations Support Superintendent also holds an
- 24 active SRO license, and he's very knowledgeable and is
- 25 actually sought out for his expertise and source of

- 1 knowledge and logical approach to doing business.
- 2 The Shift Managers are all very experienced, and are
- 3 respected and supported by their groups. This is a very
- 4 experienced operation leadership team as well. They have
- 5 good standards and values; and the Operations, Operations
- 6 Staff is very supportive of this team. They're very happy
- 7 to have this group leading them, and they have confidence
- 8 that this group will position them in the right direction.
- 9 Next slide.
- 10 Recognizing that needed improvements were necessary
- 11 in Operations, the Leadership Team led by the Shift
- 12 Managers putting together a Leadership Plan. Purpose of
- 13 the plan was to prepare operations for restart and ensure a
- 14 sustained high level after restart.
- 15 Next slide.
- 16 Vision plan is very important and underlines the
- 17 attributes necessary for an operations group. I want to go
- 18 through that rather slowly.
- 19 The Operations Department is recognized as the lead
- 20 organization at Davis-Besse. Very important item.
- 21 Continuous improvement is expected, demonstrated and
- 22 embraced by operations personnel.
- 23 Operations ownership of equipment deficiencies,
- 24 nuclear fuel performance and plant chemistry is strong.
- 25 Operation management communicates, demonstrates and

- 1 reinforces desired performance standards.
- 2 Shift management consistently demonstrates
- 3 leadership.
- 4 And, I'm losing my voice, so bear with me. Next
- 5 slide. A little bit about the plan.
- 6 MR. THOMAS: Mike, could I ask
- 7 a quick question. In your opinion, what is the status of
- 8 bullet one?
- 9 MR. ROSS: I didn't hear the
- 10 question.
- 11 MR. THOMAS: I said, in your
- 12 opinion, what is the status of bullet one?
- 13 MR. ROSS: I think there is
- 14 some -- the question, what's the status of bullet one. I
- 15 think there is some work to be done there. I think this
- 16 has been internalized in Operations and they're trying to
- 17 step forward and we're working on bringing the staff
- 18 together to ensure, or our agency step forward. It's not
- 19 done yet, working.
- 20 MR. THOMAS: Okay.
- 21 MR. GROBE: Along that same
- 22 line, is the Operations' Organization Root Cause, I'm not
- 23 sure exactly what the title is of that document; is that
- 24 completed?
- 25 MR. FAST: It's in review.

- 1 The draft has been produced. It's in review. In fact, the
- 2 author is in the audience.
- 3 MR. GROBE: I received a copy
- 4 of the first version of that document, and then that was
- 5 pulled back, then you initiated a second effort. That
- 6 activity is curbed within the last eight weeks. Could you
- 7 give me your assessment of the first effort and what that
- 8 tells you about operations leadership and what changes have
- 9 occurred in the last eight weeks?
- 10 MR. FAST: The first, the
- 11 first report that was put out was focused more internally,
- 12 rather than looking at the organizational impact. The
- 13 human dynamics associated with operations leadership have
- 14 degraded over the years. And the quality of the root cause
- we did was, I would say it's superficial.
- We dug deeper, we've gotten more feedback from
- 17 across the organization. It substantiates more direct
- 18 linkage to our 000891, that's the root cause of our
- 19 management performance for our head case.
- So, we see direct linkage. So, this is, I'll say, a
- 21 full body stout report that focuses on the human dynamics
- 22 associated with the organization. It's a much improved
- 23 version and I believe it will be more successful in really
- 24 identifying what the root cause is and the actions that we
- 25 will be taking going forward.

1	MR. GROBE: Randy, when do
2	you think we're going to be seeing that?
3	MR. FAST: Soon. Let me
4	just, let me comment. One of the things that Lew did, is
5	Steve was the team lead from day one. We will take all the
6	time necessary to ensure we have a quality product. And
7	what we have in the review and comment cycle right now are
8	some individual facts that need to be either substantiated,
9	or they need to be withdrawn. And that was some of the
0	comment that we had for this past weekend. I read that
1	report in great detail.
2	And, we want to make sure that all of the facts that
3	are provided are substantiated. And so, that's a level of
4	effort that's going on right now. But, I'm going to allow
5	that team all the time necessary to ensure we get a quality
6	product.
7	MR. GROBE: I appreciate
8	that. I wouldn't suggest that you do anything otherwise.
9	The case study, are all of the issues that are
20	captured in your draft report on Root Cause for Operations,
21	were they captured in the case study? Because it seemed
22	to be case study was already completed, you hadn't yet
23	completed this root cause report.
24	MR. FAST: I would say there
25	are some additional elements, more organizational elements

- 1 outside involvement, the focus on operational standards;
- 2 those will be addressed in more detail that really talk
- 3 about organizationally how do we provide support and
- 4 acknowledgement to the operations leadership role. That
- 5 will be evaluated more in depth.
- 6 And I believe as well there will be some corrective
- 7 actions that extend organizationally to ensure that we have
- 8 the right level support of the operations staff.
- 9 MR. MYERS: Okay, Mike.
- 10 MR. THOMAS: One more question
- 11 on that slide, please. This is open to anyone, whoever,
- 12 probably Randy or Lew, if you could answer this question.
- 13 I'm real interested in bullet one. And I'm curious what
- 14 your assessment is of the, the other organizations on site;
- 15 are they embracing that vision as well?
- 16 MR. FAST: Let me tell you.
- 17 You know, we're not the lead right now. What's happened
- 18 is, I will use the term that there has been a dilution over
- 19 time of operations having that leadership responsibility.
- 20 It's a two-fold responsibility. Organizationally, we need
- 21 to focus on that, but also we need to stand up and take
- 22 responsibility. That delusion dilution has occurred over many
- 23 years, just as the head degradation occurred over many
- 24 years.
- So, the reality is, that's not a step chain. We can

- 1 not stand up and say Ops is now the leader of the site and
- 2 everybody will rally around. Operations has to demonstrate
- 3 their leadership and demand that, and the rest of the
- 4 organization has to respond to that. Will that happen
- 5 overnight? The answer is absolutely not. That will be our
- 6 focus.
- 7 MR. MYERS: We know of
- 8 several times, we're, just sit down and try to take the
- 9 lead on something, it's not had the proper response. So,
- 10 we have to have senior management support, and you'll see
- 11 us doing that.
- 12 MR. THOMAS: Okay.
- 13 MR. GROBE: Your supervisor
- 14 observations and your manager observations, this seems like
- 15 an area that should be fairly easy to develop some
- 16 performance indicators, track progress, and I would be
- 17 interested in that.
- 18 MR. ROSS: Okay.
- 19 Next slide.
- 20 As to the content of the plan, I'll give you an idea
- 21 of the size. There are 67 items total, 42 for restart,
- 22 and benchmarking, training and other improvements.
- 23 Next slide.
- One of the real important items within the plan was
- 25 benchmarking. We took benchmarking very serious and we

- 1 benchmarked with teams. The teams were led either by the
- 2 Operations Manager or one of the Operating Superintendents;
- 3 and they had an SRO Shift Manager, Equipment Operator, a
- 4 Reactor Operator and Staff person on them.
- 5 We benchmarked three facilities. We purposely
- 6 picked three operators of multiple units, Excelon, Intergy
- 7 and Progress Energy. From that three, we compiled the
- 8 improvements we wanted to make, and as of now we have
- 9 written new standards, expectations and how they align with
- 10 the reactor.
- 11 Shift Manager has been moved out of the work control
- 12 center, so he be more visible and involved in other plant
- 13 activities and interact with the people more readily.
- As to training that's in that plan, we did complete
- 15 a case study training. That was very well received in the
- 16 Operations. Conducted an INPO first line supervisors
- 17 course. That course was aimed at the sharpening the human
- 18 performance and prevention tools of the supervisor, and
- 19 sharpening his general skills.
- 20 Boric acid program requirements were completed and
- 21 made part of the core program for operations.
- 22 Safety Conscious Work Environment training for all
- 23 supervisory personnel is completed.
- 24 We did additional training on Operability
- 25 Determinations.

1	Next slide.
2	One of the things the staff did do at Davis-Besse is
3	they kept the operator Requal Program intact. Presently
4	the Requal Program is at the stage where they're taking
5	tests in simulator, taking written tests and taking job
6	performance tests. That will give us a good idea where we
7	are in skills and how well we're prepared for restart.
8	As part of our planning for restart, included in our
9	Leadership Plan, there is additional training scheduled.
10	The standards and expectations that we just talked about
11	are brand new. There will be training going on with
12	written tests.
13	Decision-making training, restart test plan training
14	with a simulator evaluation of that training, plant
15	modifications, licensed operator responsibility training
16	and ombudsman responsibilities and procedures.
17	As to other activities, just looking a little bit
18	ahead, an additional INPO assist visit will be scheduled
19	for sometime in April. The thrust of that INPO assist
20	visit will be check and evaluation. I want to take the
21	word evaluation out there. It's an assist visit. They'll
22	give us an assist visit of our simulator performance.
23	Additionally, they'll do a check in the field of our

That concludes what I was going to say about the

standards and how well we're going on.

24

- Operations Leadership Plan.
  MS. LIPA:
  - MS. LIPA: Okay, thank you.
- 3 Do you have any closing remarks, Lew?
- 4 MR. MYERS: Well, we had some
- 5 Desired Outcomes today. That was to demonstrate that we're
- 6 making progress.
- 7 I think that the reactor vessel head, we're ready
- 8 for testing there. The containment sump, we're done. We
- 9 removed the old covering and putting new bolts in now, and
- 10 have the sump being manufactured. I think the painting is
- 11 going well, and paint removal.
- 12 Decon efforts also are doing well in containment.
- 13 We've taken one reactor coolant pump apart, already removed
- 14 the rotating assembly. Working on the second as we speak.
- 15 System readiness reviews are being completed.
- We status on some of the actions that we've taken;
- 17 very timely, time consuming and timely; and Management
- 18 Human Performance Plan.
- 19 We are getting ready now to prepare for what we call
- 20 deep drain. That's a place that a plant very seldom goes,
- 21 couple times in the lifetime of the plant. There is no
- 22 fuel in the vessel now. So, we're going to drain it down
- 23 below the nozzles. And it's tight; it's 11 inches, or
- 24 something.
- And, anyway, we would drain it down, we will go down

- 1 and take, work on like 76 valves, 79 valves. The first
- 2 valve on all Reactor Coolant System. So, it gives us an
- 3 opportunity to do some serious maintenance on those
- 4 valves.
- 5 It would have been easy for us not to do a lot of
- 6 the maintenance we're doing, but we decided to go change
- 7 some things out. We're repacking the valves. We want to
- 8 bring the plant up to quality condition. So, we're
- 9 preparing for that deep drain now.
- 10 After that, we'll be preparing for fuel load,
- 11 pressurization of the containment, pressurization of the
- 12 reactor to ensure we have good integrity.
- 13 That's all I have. Thank you.
- 14 MS. LIPA: Okay, thanks,
- 15 Lew.
- 16 I'll check to see if there is anybody who has some
- 17 comments, but I want to thank you for the information that
- 18 you shared today, and we then look forward to the next
- 19 public meeting, which will be December 10th at Camp Perry.
- We talked already today about a couple of things we
- 21 would like to hear about next time; performance indicators
- 22 on management observations, for one. And then, root class,
- 23 talk about root cause. Hopefully that will be ready, but
- 24 as Randy said, it will be done when it's done properly.
- 25 But, we're eager to see that document.

1	And then, do you have any comments?
2	MR. GROBE: Any final
3	questions?
4	Yeah, I just wanted to summarize the meeting. It
5	was a long meeting, and I appreciate the candor and all the
6	information that was shared. Christine and Marty opened
7	the meeting summarizing the results of some recent
8	inspections. And several of those inspections have had
9	positive results; and, by and large, went a great distance
10	toward closure of some of those issues; reactor head,
11	containment restoration, the issues that Christine
12	discussed earlier and presented in our newsletter, Marty's
13	inspection, and to a certain extent the resident
14	inspections identified some issues that require some
15	continuing work.
16	I think we've talked about most of the issues today
17	that I think are several of the key issues that you're
18	actively working on, but warrant a great deal of attention
19	on your part. One is the lower reactor pressurized
20	penetrations, resolving that issue; and we're looking
21	forward to the meeting on the 26th to discuss that
22	further.
23	Second, is the design issues and getting assessment
24	of those, and as soon as you're ready to talk about that
25	we're ready to meet.

The third is Safety Conscious Work Environment, and

1

14

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2	Human Performance. In this area, our inspection on
3	Management/Human Performance is currently suspended. We're
4	evaluating how to proceed on that. You have initiated a
5	significant amount of activity in that area, but there is
6	still activity that is yet to be completed; and that's an
7	area that we're particularly focusing on.
8	And then, of course, the final one we didn't talk
9	about today is just getting work done, what I refer to as
10	bulk work. But I think the outcome is that there is
11	progress. Our inspections are confirming in several areas
12	the accuracy of work that's been done. In some areas, we
13	still have work to do. Okay. Thanks a lot.

17 MR. GROBE: Sure.

one other thing?

MR. MYERS:

18 MR. MYERS: We had a question

Why don't we take a very short break?

19 earlier about Management/Human Performance. To ensure that

Could I give you

20 we're moving foward and making progress that we wanted to,

21 I've got three of our RRP members coming in during the next

22 month at different times; and what they're doing is getting

23 out and meeting with our employees. We have a lot of

24 confidence that they're independent and then giving us

25 feedback.

1	MR. GROBE: Okay, good.
2	MR. MYERS: Thank you.
3	MR. GROBE: Thank you.
4	Let's take a very short break and reconvene in three
5	minutes. So, stand up and then sit down. Don't walk out.
6	(Off the record.)
7	MS. LIPA: Well, this is
8	the, we finished the formal meeting with FirstEnergy.
9	Before we adjourn the rest of the meeting, we want to offer
10	an opportunity for members of the public or anybody who has
11	a comment to come up and talk to us. And what we would
12	like to do is start with local members of the public first
13	and then speaking clearly into the microphone for the
14	transcription, and then give us your comment or question
15	and try to take three to five minutes.
16	MR. GROBE: Let me comment.
17	Before we get started, we have a very special person here
18	today, Sam Collins. Sam is a Director of the Office of
19	Nuclear Reactor Regulation in Headquarters. He has overall
20	responsibility for the safety of nuclear power plants in
21	the United States. And I think Sam wants to make, did I
22	make that too big?
23	MR. COLLINS: You made it too
24	big.

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Sam wants to make

MR. GROBE:

1 a couple of comments, and then we can take public

- 2 comments.
- 3 MR. COLLINS: I'm not that
- 4 special, but I am here. My name is Sam Collins. I'm the
- 5 Director of the Office of Nuclear Reactor Regulation. And,
- 6 before we get started, I wanted to acknowledge that people
- 7 in Oak Harbor and Catawba Island had an occasion over the
- 8 weekend to, of course, be affected by tornados. So, we
- 9 know this probably isn't on the top of your mind as far as
- 10 this meeting is concerned for many of those local
- 11 individuals. So, we want to acknowledge that.
- 12 Having said that, we are available. I'm here
- 13 particularly to address the decision-making and the
- 14 processes that went on in regards to the reactor vessel
- 15 head and the degradation of the head, and the continuation
- 16 of the operation of the unit beyond December 31st.
- So, to the best of my ability, and recognizing I
- 18 don't have my technical staff with me that usually keeps me
- 19 out of trouble when we get into those type of details, I
- 20 can acknowledge the processes that we use and the
- 21 decision-making process, so I will be available for that.
- 22 Thank you, Jack.
- 23 MR. GROBE: We're now open
- 24 for any questions. As Christine indicated, we prefer to
- 25 limit it to 3 to 5 minutes. And we would like to start

- 1 with any local, public representatives or members of the
- 2 local community.
- 3 HOWARD WHITCOMB: My name is Howard
- 4 Whitcomb.
- 5 Welcome, Mr. Collins.
- 6 I think there is a young gentleman, I don't see him
- 7 here, or this afternoon; I think might want to ask some
- 8 questions. I hope you're here for the evening session.
- 9 MR. GROBE: Howard, pull the
- 10 microphone down a little bit. There you go.
- 11 HOWARD WHITCOMB: In keeping with
- 12 the spirit of being short, I have a very, well, I have a
- 13 comment, quick comment. Mr. Ross, I think you're right on
- 14 target with your vision statements. I think you have a
- 15 magnificent challenge ahead of you to get Engineering to
- 16 subscribe to the notion that Operations is the boss.
- 17 That's been a problem at Davis-Besse for as long as I know
- 18 Davis-Besse people, and I think that's, it's going to be a
- 19 big hurdle to overcome.
- 20 In looking at the FirstEnergy, I guess it was the
- 21 handout on July 16th, in looking at the Restart Overview
- 22 Panel, which was specifically page 5 of that handout, I had
- 23 a question. There is a Mr. Jack Martin, who is identified
- 24 as the Company Nuclear Review Board Representative. I
- 25 guess he's on the Restart Overview Panel.

1	My question is, is this the same Jack Martin who was				
2	the Regional Administrator in Region III of the Nuclear				
3	Regulatory Commission in the mid 90's?				
4	MR. GROBE: I think I can				
5	answer that question. That is correct. Jack retired from				
6	the Nuclear Regulatory Commission a number of years ago,				
7	and is providing services to the industry. There is also				
8	other former members of the Nuclear Regulatory Commission				
9	Mr. Joe Callan, the former Executive Director for				
10	Operations. I guess that's it, Jack and Joe are the only				
11	two former NRC executives.				
12	HOWARD WHITCOMB: Okay. That's all				
13	I needed to know. Thank you, Jack.				
14	MR. GROBE: Thanks.				
15	Other questions or comments from the local				
16	community?				
17	Okay. I would like to open it up to the floor				
18	then. Any questions or comments from anyone else?				
19	AMY RYDER: Amy Ryder. Like				
20	the truck.				
21	I have just a couple of quick questions. My first				
22	is regarding the testing of the reactor looking for the				
23	leakage at the bottom. It raises a little bit of a red				

flag that they want to put fuel in the reactor. They want

to put fuel in the reactor when they test it. And it seems

24

1	like there is ar	alternative	way to do it
- 1	like tilele is al	ı ailemaliye	way to do it.

- 2 Does the NRC have the authority to tell them, no,
- 3 you can't put fuel in the reactor?
- 4 MR. GROBE: What alternative
- 5 were you thinking of?
- 6 AMY RYDER: Well --
- 7 MR. COLLINS: Without fuel.
- 8 AMY RYDER: Without fuel.
- 9 MR. GROBE: Thanks, Sam. You
- 10 clarified that.
- 11 There is two issues that precipitate the need to
- 12 have the fuel in the reactor. The way, the way you heat
- 13 up, if you're not using the fuel, which you're not going to
- 14 use the fuel, the power from the fuel to heat up, is with
- 15 pump heat, and you have to run the pumps; and that
- 16 circulates a huge amount of water through the reactor; on
- 17 the order of probably half a million pounds, something of
- 18 that order. A lot of water.
- 19 That causes two concerns. One is that if you're
- 20 not, if you don't have the equipment inside the reactor
- 21 vessel itself appropriately supported, it can move around
- 22 and damage itself. And, the fuel provides some of that
- 23 structural support for the equipment inside the reactor.
- 24 The second issue, I think that this issue was
- 25 discussed by FirstEnergy a little bit, but just to make

- 1 sure you're clear. The pumps would damage themselves if
- 2 they're not pushing against enough force. They're going to
- 3 be circulating water. And they're designed to circulate
- 4 that water with the fuel in there. And that fuel
- 5 represents a significant burden to push water through.
- So, if the fuel isn't there, the pumps would go into
- 7 what's called runout. What that means is, they run too
- 8 fast and they can damage themselves. So, FirstEnergy has
- 9 concluded that they need to have the fuel in the vessel to
- 10 do the test.
- 11 Now, that precipitates a number of different
- 12 things. If you're going to heat up the reactor to normal
- 13 operating temperature and pressure with the fuel in the
- 14 reactor vessel itself, you are entering one of the modes in
- 15 the technical specifications that require a variety of
- 16 systems, safety systems to be in service.
- 17 So, there is a large number of work activities that
- 18 have to occur to put all those safety systems, including
- 19 the containment structure itself back in service and other
- 20 emergency systems, including the sump; the sump has to be
- 21 operable; various emergency systems have to be operably in
- 22 service, containment has to be in place.
- So, there is a lot of work that has to occur to make
- 24 sure that doing the test in that configuration is in
- 25 accordance with our requirements and done safely.

1	l Ir	n additio	n to that	t there i	s a ru	le, that's
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- 2 10-CR-50.65A4. And what that specifically talks about is
- 3 whenever you do something unusual, maintenance activities,
- 4 testing activities, that you assess the risk of that work,
- 5 and then if it is risky work, take compensatory actions.
- 6 And that is also something that the company would need to
- 7 consider, whether this is an unusually risk significant
- 8 activity and what type of compensatory actions.
- 9 So, we would be looking at all of these various
- 10 valuations that they would have to do, as well as we would
- 11 be thoroughly inspecting the Return to Service and
- 12 Containment Integrated Leak Test would have to be completed
- 13 before that would occur.
- 14 AMY RYDER: When you asked the
- 15 question this afternoon, why do you want to put the fuel in
- 16 the reactor when you heat it up. And their response,
- 17 simplified, was that certain equipment doesn't exist
- 18 anymore, so we have to put the fuel in versus equipment
- 19 that is no longer produced.
- 20 MR. GROBE: Yeah. They
- 21 referred to hot functional testing. Back when plants were
- 22 being built in the United States, one of the first, excuse
- 23 me, one of the final tests that's done before a plant is
- 24 put into operation is what's referred to as hot functional
- 25 testing. As you construct equipment, you test it as you

1 build it, and then final tests are integrated tests that

- 2 are done at normal temperature and pressure.
- 3 There was a special piece of equipment, for lack of
- 4 a better term, an orifice that provided that back
- 5 pressure. And that equipment just doesn't exist anymore.
- 6 So that the pumps would not damage themselves.
- 7 AMY RYDER: Can't they just
- 8 make them?
- 9 MR. GROBE: There is two
- 10 issues. You can probably manufacture a piece of equipment,
- 11 but installing it is not, as an operating reactor, reactor
- 12 vessel would react from the neutrons from the fuel. So,
- 13 it's not the kind of thing that is reasonable to do. And,
- 14 I'm not sure it's unreasonable to put fuel to run this
- 15 test. I think it's something that insistent with test tech
- 16 specification, the operating license, and we would provide
- 17 appropriate oversight inspection.
- 18 AMY RYDER: I'd probably never
- 19 put the fuel back in.
- 20 MR. GROBE: I understand.
- 21 AMY RYDER: But let's skip
- 22 that.
- 23 My next question is for Sam Collins. What was the
- 24 reasoning behind you not issuing, allowing to operate until
- 25 February 16th without allowing the shutdown to take place?

1	MR. COLLINS:	Thanks for the						
2	question. I'm going to start a little bit in time, if I							
3	may, and kind of march through the process.							
4	AMY RYDER:	Okay.						
5	MR. COLLINS:	The NRC issued a						
6	bulletin back in 2001, it's Bulletin 2001-01. And what we							
7	did with that bulletin was alert licensees to the							
8	phenomenon of the cracking of the reactor vessel head. It							
9	had been observed for a period of time, particularly in the							
10	French plants. They were the first plants to discover it.							
11	They replaced their heads.							
12	And, subsequent to the i	nitial type of cracking,						
13	which we recall axial, which is	s straight up and down, there						
14	was a secondary type of crac	king, which is circumferential,						
15	which goes around. And the	circumferential cracking was of						
16	more concern, because it wa	s not initially well understood						
17	for crack rules rates and how	and when it happened.						
18	We knew plants had bee	n inspecting for cracks since						
19	the 90's, quite awhile, includi	ng Davis-Besse. And what we						
20	challenged the plants with in	the Bulletin 01-01 was to						
21	indicate to the NRC why thos	e inspections had been						
22	satisfactory. And, if the inspe	ections had not been						
23	satisfactory, we wanted them	to shut down before December						
24	31st in order to perform what	we determined would be an						
25	appropriate type of inspection	٦.						

1	So, we	were	receiving	information	trom al	160 some

- 2 odd pressurized water reactors in the United States, but
- 3 there was a group of plants that were what we call high
- 4 susceptibility plants, particularly the B and W type of
- 5 reactors of which Davis-Besse is one, that we were more
- 6 sensitive to the information and had them on an accelerated
- 7 schedule, if you will.
- 8 The information that Davis-Besse submitted to us in
- 9 December, the initial response to the bulletin, we
- 10 determined was unsatisfactory. It did not contain enough
- 11 information for us to make a determination that the
- 12 inspections that had been performed prior to that time were
- 13 satisfactory, given the new circumferential cracking
- 14 phenomenon.
- So, we had a series of meetings with them. I
- 16 believe there were, if I have this right, five letters back
- and forth; there were perhaps four public meetings that
- 18 went on with the Licensee to glean information and to try
- 19 to have a better understanding of the plant.
- The plant was originally to run until the end of
- 21 March. That was when the next outage would be for them.
- 22 The normal shutdown, if you will, for them to do the
- 23 inspection.
- 24 AMY RYDER: Right.
- 25 MR. COLLINS: Some plants did

- 1 shut down to do the inspection. Some plants provided us
- 2 enough information to provide them to run until the next
- 3 cycle. Davis-Besse was kind of in between.
- 4 On, if I get my dates right, on November 28th or so,
- 5 the final meeting with the Licensee, where they provided us
- 6 information to substantiate their inspection scope,
- 7 including compensatory measures that they would take in the
- 8 event that they did have a problem, that had leaks or
- 9 catastrophic failure. I can go into those, but those are
- 10 probably detail at this point.
- 11 The staff then made two types of determinations.
- 12 Made one of, do we believe that the past inspections are
- 13 adequate. And based on the information that was provided
- 14 to us, we did. We did not know about the erosion on the
- 15 head. Had we known of the erosion on the head, clearly we
- 16 would have made a different decision.
- Did we have opportunities to do, to review the head
- 18 and to discover the erosion? The answer to that is yes.
- 19 We missed opportunities to do that. But at that point, we
- 20 made the decision, we did not know.
- 21 AMY RYDER: I think the
- 22 confusion is, the decision that you were ultimately
- 23 responsible for differed from what your staff had decided.
- 24 That your staff had decided that those inspections were not
- 25 adequate, that they needed to shut down by December 31st to

- 1 look for those cracks. And, on the 28th, FirstEnergy made
- 2 their final plea, and it was ultimately your decision to
- 3 allow them to continue to reopen, and that differed from
- 4 the staff that had done all the investigative work.
- 5 MR. COLLINS: Yeah, I understand
- 6 why you say that, based on the information as provided from
- 7 the FOIA, of course, Freedom of Information Act, process of
- 8 information action, emails, letters, notes; and perhaps
- 9 what you may have read or may have heard. Let me try to
- 10 clarify that if I can.
- 11 The staff made a decision at the end of November,
- 12 and the staff consensus at that point was that it was
- 13 acceptable for Davis-Besse to operate halfway through their
- 14 normal cycle, as it extended beyond December 31st. So,
- 15 they ran to the middle of February.
- 16 The staff was specifically asked if they had any
- 17 reservations about that? And the answer was no. There
- 18 were two individuals who indicated that they would have
- 19 made a different decision, but that they would go along
- 20 with the consensus and they didn't believe there was an
- 21 immediate safety concern.
- 22 I asked the manager, who was at that meeting, if I
- 23 could talk to those two individuals. And I personally
- 24 talked to those two individuals to ensure that they in fact
- 25 did not have any safety concerns with the continuation of

1 the operations of the Plant. And they expressed to me that

- 2 they did not.
- 3 They had different views, if you will, of some of
- 4 the technical information. They might have done
- 5 calculations differently, but they did not disagree with
- 6 the consensus of the staff.
- 7 So, in fact, what the emails depict is a process
- 8 that's building towards a resolution. And, we had, and I
- 9 tried to find out if we issued it today, I apologize I
- 10 don't have the answer. But there is a safety evaluation
- 11 that we're issuing to Davis-Besse that will outline that
- 12 process and the basis of that process, and that information
- 13 will be contained in it. If it's not issued today, it will
- 14 be issued by the end of the week.
- 15 AMY RYDER: Did Mr. Saunders
- 16 make a plea to you to postpone the shutdown order based on
- 17 public perception based on fuel and financial markets?
- 18 MR. COLLINS: To the extent that
- 19 you express it, no.
- 20 AMY RYDER: Okay.
- 21 MR. COLLINS: However, as in any
- 22 decision that has to be made, there are a number of
- 23 ramifications of those decisions, which I've discussed.
- 24 The NRC makes decisions based on safety. They have four
- 25 performance goals; maintain safety, we want to do our work

- 1 efficiently and effectively, we want to reduce unnecessary
- 2 burden, when it's appropriate, and we want to have public
- 3 confidence to the extent that it's public confidence in a
- 4 strong credible regulator. Not nuclear power, but nuclear
- 5 regulator.
- 6 This was strictly a maintain safety decision. What
- 7 was discussed over lengths of time was when it is
- 8 appropriate for the plant to shut down for an outage, and
- 9 what are the ramifications of the different dates as they
- 10 were proposed. Clearly, I won't speak for the Licensee,
- 11 but clearly I think the Licensee, everything being equal,
- 12 would like to run to the end of their cycle. The NRC had a
- 13 question of, tell us why your inspections are adequate and
- why they support operation beyond December 31st.
- For this plant, the staff determined that it was
- 16 acceptable to run beyond December 31st. So, the question
- 17 comes, what is the most opportune time for the plant to
- 18 shut down, given that the end of the cycle, which is,
- 19 perhaps increases the probability of cracking, although
- 20 minuscule, you're talking 45 days of extra operation, but
- 21 if you could minimize that, you want to.
- So, the discussion became, when is the new fuel
- 23 available? When will the modification packages for the
- 24 outage, as originally proposed for the end of March, be
- 25 finalized, so that they could be performed on a sooner

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- What is the amount of mainline exposure, which is a
- 3 real maintained safety issue, because there are
- 4 individuals, many in this community, who work at the plant,
- 5 who have to be concerned about the limits of radiation
- 6 exposure; and if job's unplanned, if equipment isn't ready,
- 7 if training isn't done, extra exposure can be increased.
- 8 And then there is the issue of the accelerated
- 9 inspection itself, which the determination being that the
- 10 plant did need to do different types of inspection. When
- 11 is the training of individuals available? When is the
- 12 equipment available? And what is the impact of all of
- 13 this?
- 14 Those are resources, is time, people and money. Is
- 15 that financial, yes? Does it deal with maintaining
- 16 safety, yes. So, the optimum date that was determined to
- 17 be, halfway between, if you will, December 3st, and the end
- 18 of the cycle. That was the earliest date by which we
- 19 determined the risk of doing an outage on a short term
- 20 basis is negated by the risk of continuing to operate.
- 21 And, FirstEnergy would be prepared to perform an efficient
- 22 and effective outage.
- So, in a long-winded way, and I kind of excuse
- 24 myself for that, if you will.
- 25 AMY RYDER: Okay.

1	MR. COLLINS: That kind of gives				
2	you background of how the finances or how the schedule of				
3	resources were discussed in the manner that it takes to				
4	support accelerated outage.				
5	AMY RYDER: I appreciate what				
6	you're saying, but from somebody who lives in Ohio, and I				
7	believe I could be I live in Cleveland I believe I				
8	could be affected if there was an accident at this				
9	facility. It does seem a little arbitrary. And I would				
10	rather the NRC err much more on the side of caution, than				
11	to base these decisions on a cost-benefit analysis, because				
12	that's the decisions that FirstEnergy has been making for				
13	quite sometime now and we see what happened when they do				
14	that, so.				
15	MR. COLLINS: And that's an				
16	appropriate comment.				
17	If I can, the cost-benefit analysis is only gone to				
18	after the maintain safety question is answered. And we				
19	have processes that provide for that.				
20	You mentioned the order perhaps, in your first				
21	question, if I could just answer that also, take the				
22	opportunity.				
23	We had prepared an order for Davis-Besse, like we				
24	would with any plant that we felt it was necessary to shut				
25	down in order to do the inspections on the maintain safety				

- 1 basis. That order was predicated on establishing the
- 2 condition by which we felt like there was an undue hazard,
- 3 if you will, where a plant either did not meet the license
- 4 or we had conclusive evidence, that's kind of a legal term,
- 5 but conclusive evidence that there was a condition that
- 6 placed the public and environment in an undue hazard.
- 7 That order was, in fact, available to be issued if
- 8 it was necessary. And it went through me, went through the
- 9 Executive Director, it went to the Commission for
- 10 Information, the Commission of Technical Assistance were
- 11 briefed on it. I am the individual who would have signed
- 12 it out.
- 13 Based on discussions with FirstEnergy, if the NRC
- 14 had decided that the plant needed to shut down on December
- 15 31st, I had the commitment of Mr. Saunders that he would
- 16 shut the plant down. And we would not have to issue an
- 17 order, although we had it available; if we came to that
- 18 decision that it was necessary to maintain safety. We did
- 19 not come to that decision, based on the consensus of the
- 20 staff, so the order was not necessary to issue.
- 21 AMY RYDER: Wasn't there also
- 22 a press release written along with the order?
- 23 MR. COLLINS: Yes. Any time--
- 24 that's a good observation. Any time that we propose a
- 25 significant regulatory action, we have what we call a

- 1 communication plan that goes with it. That's not only a
- 2 press release, but it's notification of elected officials,
- 3 notification of Congress; it's all of those areas that help
- 4 us in the public confidence.
- 5 AMY RYDER: Thank you.
- 6 JAMES DOUGLAS: I have not met you
- 7 before, sir. I'm one of the neighbors. I live down the
- 8 street from Davis-Besse. And I'm also a retired chemical
- 9 engineer. Okay.
- 10 MS. FRESCH: Excuse me, sir.
- 11 Could you state your name, please?
- 12 JAMES DOUGLAS: My name is James
- 13 T. Douglas. I live on Duff-Washa Road. I'm a retired
- 14 plant engineer and chemical engineer by trade. I've got a
- 15 couple of questions.
- 16 How does Davis-Besse justify their gross negligence
- 17 of not inspecting the reactor and letting it get so far, as
- 18 paper thin stainless steel? Now, how do they justify
- 19 this?
- 20 This to me is absolutely, I could almost vomit. I
- 21 have run the biggest acid plant in the world. Now, let me
- 22 tell you, I can't get by that statement, that question. I
- 23 can't get by it.
- 24 MR. GROBE: I don't want to
- 25 speak for the company, but what I can share with you is

- 1 they met with us on August 15th, and submitted what they
- 2 believed was their root cause, and there was no
- 3 justification or, I guess there was no justification of how
- 4 it would have been acceptable for this to have occurred.
- 5 There was a lot of reasons that it occurred. No
- 6 justification. And --
- 7 JAMES DOUGLAS: Okay.
- 8 MR. GROBE: And they're in
- 9 the process of trying to address those reasons. We call
- 10 them root causes. And we're in the process --
- 11 JAMES DOUGLAS: Well, they have a
- 12 horrible problem. They have the biggest plant problem I
- 13 could ever imagine. They're all brand new, the employees.
- 14 The other guys were kicked out by the Board of Directors.
- 15 They have the Board of Directors looking over their
- shoulders at them, every single action that they take.
- 17 Their employees, and all of the hourly employees
- 18 that worked under them, when they take a look at the head
- 19 of the vessel head, how badly it was deteriorated, they
- 20 have a reason to sit down and almost hate the supervisors
- 21 that sent them in to almost get them killed. Nobody can
- 22 justify in my mind how paper thin stainless steel can
- 23 retain two thousand pounds of pressure.
- 24 MR. GROBE: I understand your
- 25 comment. And I think it's a very appropriate comment.

1	Sam, do you want			
2	JAMES DOUGLAS: I mean, they've			
3	got pressure from the top. They've got pressure from the			
4	bottom. And all I hear is gobbledygook from the stage.			
5	MR. COLLINS: Mr. Douglas, let			
6	me tell you what we know about the inspection of the head,			
7	if that would be helpful for you. I don't think it's going			
8	to answer all of your questions, but it can perhaps give			
9	you a perspective of the information that we have and what			
10	the ongoing reviews are. If that's okay.			
11	In response to the bulletin I mentioned earlier in			
12	response to the young lady's question, FirstEnergy came and			
13	presented to us their inspection plans that they had been			
14	conducting over a period of time in response to the concern			
15	about cracking.			
16	There was Boron that was found on the head. It's			
17	not unlike other plants when you look at it on the surface,			
18	because of the mechanical leakage, not because of the			
19	pressure primary leakage, but because of mechanical			
20	leakage.			
21	FirstEnergy presented to us their inspection plans,			
22	if I have the dates right, it's '96, '98 and 2000. I think			
23	I have that correct. And, indicated to us that those			
24	inspections had been complete; that the head had been			
25	inspected: the head was relatively clean. But there was a			

- 1 group of control rod drive mechanisms, if I remember the
- 2 numbers, four or so, on the top area of the head that had
- 3 not been inspected.
- 4 JAMES DOUGLAS: Can I interrupt
- 5 you here for a second?
- 6 MR. COLLINS: Sure.
- 7 JAMES DOUGLAS: How can they
- 8 inspect in behind that big steel false wall without cutting
- 9 holes in it; and they never did that to take a look. Now,
- 10 when they did, what did they see? Enough crap and
- 11 corrosion to make you sick to your stomach.
- 12 MR. COLLINS: I don't disagree
- 13 with that at all. In fact, the NRC was at the head also.
- 14 We had an opportunity to identify this. We had inspectors
- 15 at the head. We observed the cleaning of the head. We
- 16 observed the in-service inspection of the head. And we
- 17 ourselves did not recognize the phenomenon that was going
- 18 on with the Boron.
- 19 We knew there was Boron there, but we didn't
- 20 understand completely the phenomenon, as chemical
- 21 engineering probably do, but we did not jump to that. That
- 22 was a missed opportunity.
- 23 JAMES DOUGLAS: What are they
- 24 going to do to prevent this in the future? They have a
- 25 bunch of mouse holes. Okay?

1	MR. COLLINS: Mouse holes.			
2	JAMES DOUGLAS: They cut a whole			
3	bunch of mouse holes, they said, and it showed them on the			
4	picture on the paper, all the way around the head, so they			
5	can at least get in there with some kind of cameras and			
6	look.			
7	MR. COLLINS: There is a number			
8	of issues, I guess, in a different form perhaps FirstEnergy			
9	could speak for themselves. But, as a regulator, what we			
10	understand; one, they're replacing the head, of course.			
11	So, there is a new head. There are additional inspection			
12	requirements on the head itself. There is new types of			
13	insulation on the head, so that the insulation could be			
14	readily removed to provide for more			
15	JAMES DOUGLAS: Engineering never			
16	stands still, sir.			
17	MR. COLLINS: There is a new			
18	type of mouse holes and doghouse, as you refer to them,			
19	called access ports, which other plants have done, other			
20	ports have modified that access house, so they could			
21	visually see what was going on. That's been done.			
22	They're proposing also in addition to the more			
23	frequent inspections new types of leak detection systems,			
24	which I'm not sure if you were here on the presentation,			
25	but that would be a first of a kind in this country. They			

- 1 are used in some plants in Europe to monitor the upper head
- 2 and the lower head for leakage.
- 3 Other plants are doing these types of things too.
- 4 There are a number of plants that are replacing their
- 5 reactor vessel heads. Eventually all plants that want to
- 6 continue to operate under this condition, not because of
- 7 Boron degradation, but because of the stress corrosion
- 8 cracking of the Alloy 600 stainless steel.
- 9 JAMES DOUGLAS: Let me present one
- 10 scenario to you. Let us say in 2007, they do not get their
- 11 new head. Okay? It gets delayed. All right?
- 12 MR. COLLINS: They have it now.
- 13 JAMES DOUGLAS: No, no, no, they
- 14 have the new one from Michigan now. They have another one
- on order to be delivered 2007. Am I correct in that?
- 16 MR. GROBE: I believe that's
- 17 correct. Yeah.
- 18 JAMES DOUGLAS: Okay. Now, I
- 19 don't care if it's a year off, I don't give a rat's-- okay.
- Let us say that they do not get this new head in
- 21 2007, because everybody in the nuclear industry is
- 22 absolutely shook up. They're all going to order new heads.
- 23 And only those that are real bad are going to get them,
- 24 because you can only make them so fast. They're
- 25 fantastically complicated. Okay? All right.

1	At least Davis-Besse is going to be told, you're not
2	going to get your head, your new head, you're going to have

- 3 to go with the Michigan head. Okay?
- 4 MR. GROBE: Let's just make
- 5 sure the premises are correct. It's my understanding the
- 6 company plans on replacing their steam generators in 2012.
- 7 Is that it? And --
- 8 JAMES DOUGLAS: The whole thing?
- 9 MR. GROBE: The steam
- 10 generators. It's a component inside containment.
- 11 JAMES DOUGLAS: Oh, okay. All
- 12 right.
- 13 MR. GROBE: And at the same
- 14 time, they would be installing the redesigned head. That
- 15 head is on order, and I know of no reason it wouldn't be
- 16 received. Each plant has to order their head if they
- 17 desire a new one. And again --
- 18 JAMES DOUGLAS: Okay. Let me
- 19 finish my scenario just for a second, because my point is a
- 20 little different than you think.
- 21 MR. GROBE: Okay.
- 22 JAMES DOUGLAS: Suppose they don't
- 23 get the head. It gets delayed. They have to wait ten more
- 24 years to get the head. They have to make this head last,
- 25 because it will only be seven years old then. They at

- 1 least got 25 years or so out of the first head, okay. So,
- 2 they are not in dire need of that new head. Whereas, some
- 3 other plants might and the government may just take it away
- 4 from them. Okay.
- 5 Now, what can they do?
- 6 MR. GROBE: We issued a
- 7 bulletin, recently, which described augmented testing for
- 8 reactor pressure vessel heads. And, that testing is,
- 9 increases in its comprehensiveness, based on the age of the
- 10 head, and the amount of degradation that might be present
- 11 in the parts of the head.
- 12 Given the fact that the head that Davis-Besse is
- 13 installing is not used, it's not been exposed to service
- 14 conditions, there are very well little inspection
- 15 requirements, other than visual inspections. As this head
- 16 gets older, based on our current bulletin to all
- 17 pressurized water reactors, there would be augmented
- 18 inspections requiring required nondestructive examination
- 19 of the penetrations.
- 20 JAMES DOUGLAS: Okay, my point is
- 21 this. If you assume and think about that they are not
- 22 going to get the head, and they have to make the head go,
- 23 wouldn't it be a marvelous scenario if they had a whole
- 24 series, thousands of photographs of all of the square
- 25 inches of weld on that head that they have? This is what

- 1 it looked like before our last, right after our last annual
- 2 refeuling. And, there it is, a nice smooth bald
- 3 head, clean as can be.
- 4 Wouldn't that make them, the Board of Directors
- 5 happy? Wouldn't that make John Q. Public happy? Wouldn't
- 6 that make their employees happy?
- 7 MR. COLLINS: Mr. Douglas, I
- 8 think you're on to something.
- 9 JAMES DOUGLAS: Well, I wish to
- 10 hell they would listen.
- 11 MR. COLLINS: Let me clarify a
- 12 few things and then agree with you.
- The government, meaning me, doesn't decide whether
- 14 FirstEnergy procures a new head for Davis-Besse or not.
- 15 They have one on order. They can decide to trade it, which
- they might and I agree with that.
- 17 JAMES DOUGLAS: Mr. Bush might
- 18 disagree with you, I don't know. (laughing)
- 19 MR. COLLINS: Well, I'll take
- 20 that.
- 21 This head is Alloy 600, so it is the old type of
- 22 material.
- 23 JAMES DOUGLAS: Yes, it is.
- 24 MR. COLLINS: The new heads are
- 25 a different type of alloy that are perhaps less

- 1 susceptible. The amount of age on the head is really
- 2 effective full power years. It's not the age in dog years,
- 3 so to speak, it's the age that the plant has been operating
- 4 at full power. So, that will be tracked.
- 5 This plant will remain a high susceptibility plant,
- 6 so it will have enhanced inspections. We're also going
- 7 back as a lessons learned at the NRC to the National Codes
- 8 and Standards, and working with the National Codes and
- 9 Standards Group to create generic as-need type of standards
- 10 for the inspection of the head. Those will continue at
- 11 this plant for this type of head and potentially even for
- 12 the new upgraded type of head.
- 13 In fact, the inspections you've been asking for,
- 14 they've been done.
- 15 JAMES DOUGLAS: Okay. I'm very
- 16 happy about it. I'm talking about a photographic
- 17 preventative maintenance program. They keep the
- 18 photographs on file; and any, they can of course leave it
- 19 open to the public, but certainly any of your people that
- 20 want to look at them, and they can see they are in good
- 21 shape; and this is exactly what we need is a good strong
- 22 head to operate that bloody machine.
- 23 MR. COLLINS: In addition to
- 24 that, it's also what you would know as nondestructive
- 25 examination of the head, which means that they have done a

1	mapping	of the	head and	d metallurgy.	The heads	are forged.

- 2 So, there are welds in the area of the CRDN I believe on
- 3 the old style heads, and that's susceptibility area, but
- 4 the majority of the head is forged.
- 5 JAMES DOUGLAS: But I sure wish as
- 6 long as you guys stayed, I sure wish you would think about
- 7 a good photographic PM program and keep it on file.
- 8 MR. MYERS: That will do it.
- 9 JAMES DOUGLAS: Everybody. It
- 10 would make everybody in the whole damned place happy as can
- 11 be. And I would sleep much better at night, I'll tell
- 12 you.
- 13 MR. COLLINS: I'm hearing there
- 14 is a videotape that exists of the head.
- 15 JAMES DOUGLAS: I thank you for
- 16 staying and listening. Okay.
- 17 MR. COLLINS: Thank you for your
- 18 comments.
- 19 MR. MYERS: We'll show it to
- 20 you, if you want to see it.
- 21 JAMES DOUGLAS: I would love to
- 22 see it.
- 23 MR. MYERS: We'll show it to
- 24 you.
- 25 MR. COLLINS: Maybe we can link

1	you up with Mr. Myers here.	
2	MR. GROBE:	When they're
3	showing you the videotape of the	e head, why don't you ask
4	them also to bring the case study	, and they can share that
5	with you too.	
6	JAMES DOUGLAS:	I'll listen to
7	your advice, thank you.	
8	MR. GROBE:	Any other
9	questions?	
10	Okay. I think that's it. We'll	be back here at
11	7:00. If any of you want to rejoin	n us, you're welcome.
12	Thank you very much.	
13	(Off the record.)	
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1	CERTIFICATE
2	I, Marie B. Fresch, Registered Merit Reporter and
3	Notary Public in and for the State of Ohio, duly
4	commissioned and qualified therein, do hereby certify that
5	the foregoing is a true and correct transcript of the
6	proceedings as taken by me and that I was present during
7	all of said proceedings.
8	IN WITNESS WHEREOF, I have hereunto set my hand and
9	affixed my seal of office at Norwalk, Ohio, on this 23rd
0	day of November, 2002.
1	
2	
3	
4	Marie B. Fresch, RMR
5	NOTARY PUBLIC, STATE OF OHIO
6	My Commission Expires 10-9-03.
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